

Date: Sun, 29 May 94 04:30:23 PDT
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #168
To: Ham-Digital

Ham-Digital Digest Sun, 29 May 94 Volume 94 : Issue 168

Today's Topics:

02:Undeliverable RFC822 mail: returning to sender
Motorola GPS engine purchase information
Undeliverable RFC822 mail: returning to sender

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 26 May 94 00:59:52 +0000
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!EU.net!sun4nl!idn!61-100-0-0!
PMDf.Mail.Server@network.ucsd.edu
Subject: 02:Undeliverable RFC822 mail: returning to sender
To: ham-digital@ucsd.edu

From: postmaster@sedalia.sinet.slb.COM (PMDf Mail Server)
Date: 26 May 94 00:59:52 GMT
Organization: ucsd usenet gateway

Subject: Multi-mode TNC suggestions
To: ham-digital@ucsd.edu

Since this request falls under both digital communications and equipment,
I'm crossposting -

I'm budgeting for a multi-mode, and am eyeing either the AEA PK232MBX or
the AEA PK900. What are the comments pro/con with each?

How about comparing/contrasting them with the Kantronics KAM Plus.

I'm looking for people's experiences with performance AND reliability for the price. For now, I plan on doing a lot of receiving.

Additionally, can any of the above units receive the 137Mhz NOAA weather satellites? If so, what is/are the requirement(s)?

Thanks for any info you can provide.

I will summarize if I get enough responses.

Scott

--

```
=====
| Scott Ehrlich           Amateur Radio: wy1z           AMPRnet: wy1z@wa1phy.ampr.org |
| Internet: wy1z@neu.edu   BITnet: wy1z@NUHUB           AX.25: wy1z@wa1phy.ma.usa.na |
| -----|
|           Maintainer of the Boston Amateur Radio Club hamradio FTP area on |
|           oak.oakland.edu - /pub/hamradio                               |
|=====
```

Date: 20 May 94 07:03:07 GMT

From:

dog.ee.lbl.gov!agate!cat.cis.Brown.EDU!noc.near.net!news.delphi.com!rabbi@ucbva.berkeley.edu

Subject: Multi-mode TNC suggestions

To: ham-digital@ucsd.edu

Out here, the AEA's are losing ground to the KAM+. You may want to give it a closer look, now that G-TOR is here. Haven't used it myself, but I've heard many good things about it's efficiency. Check out PKGold for the AEA and KaGold for the KAM. This is host-mode software that is definately worth considering.

Karl

Date: Tue, 17 May 1994 21:10:36 GMT

From: taligent!tom-taylor.taligent.com!user@ames.arpa

Subject: PK-232MBX vs. MFJ-1278B

To: ham-digital@ucsd.edu

In article <2r34vk\$3lc@mary.iaa.org>, denglet1@iaa.org (Tom Dengler) wrote:

>

> ST>narrowed it down to the MFJ-1278B and the AEA PK-232MBX. I'd love to
>
> I have the MFJ1278B. This is the only TNC I have had, so I can't really
> compare.
>
> ST> "random code generator" (?)
> This random generator allows for practicing CW. I have never used it.
>
> ST>Is the MFJ fax really full-color, or is it "color shading" instead of
gray?
> I think it depends on the transmission mode????
>

The 1278 supports SSTV and FAX, but unlike the other text-only modes where
the
1278 does all the work, SSTV and FAX require smart software on the computer
side
to transform a binary stream of nibbles into a picture. MFJ's IBM
compatible
MultiCom program supports color FAX by sending (and receiving) three
different
pictures or color separations. On the receiving end, the three pictures
are combined
into one picture again. Really, this is not much different than the way
many of the color
SSTV formats work.

Although the 1278 supports SSTV reception, all of the decoding logic is in
the
software external to the 1278. MFJ can send you technical information on
how
the 1278 sends the binary stream of data (the information is actually in
the
technical manual that comes with the 1278), but you'll have to figure out
how
each of the SSTV formats (Scottie1, Robot72c, etc.) is interpreted.

Tom Taylor

Date: 19 May 1994 21:46:42 GMT
From:
newsgate.watson.ibm.com!watnews.watson.ibm.com!watson.ibm.com!uri@uunet.uu.net
Subject: what freq to receive weather fax ?
To: ham-digital@ucsd.edu

In article <2r6b56\$8ii@usenet.INS.CWRU.Edu>, ep480@cleveland.Freenet.Edu (Wayne

Stade) writes:

> WeFax frequencies to try are as follows:

> 8682, 12730, 17151.2, 22528.9kHz. Hope this helps...

A question: when I receive WeFax - it's practically unreadable.

I.e. one can make out a few words and digits, but that's all...

Is it supposed to be that way, or should I tune up something?

[No, the LPM and IOC is correct. I'm using PK-232...]

Thanks!

Regards,

Uri.

<Disclaimer>

End of Ham-Digital Digest V94 #156

--Boundary (ID HgQZVRe6auSmH4rT46VGXQ)--

--

| This msg is brought to you via IDN Internet Gateway (idn.nl)

| Internet: PMDF.Mail.Server@f0.n100.z61.fidonet.org

|

| Standard disclaimer: The views of this user are strictly his own.

Date: 25 May 94 18:20:41 +0000

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!EU.net!sun4nl!idn!com!dec!enet!
specxn!bonomo@network.ucsd.edu

Subject: Motorola GPS engine purchase information

To: ham-digital@ucsd.edu

From: bonomo@specxn.enet.dec.com ()

Organization: Digital Equipment Corporation

Date: Wed, 25 May 1994 18:20:41 GMT

Greetings, one and all!

This message is ASCII text, formatted as <CR> at =<78 characters, tabs at +8.

Have finally received "everything" which I will obtain from Motorola and Trimble, and the order requests have dwindled to a minimum, I have attached the specifications and pricing below.

In a nutshell, the Motorola unit is better in every way, excepting three factors. The Trimble unit:

- 1) is about 1/8" smaller in width and height,
- 2) is about .6 ounce lighter,
- 3) consumes less power in standby, quoted as ~2uA nominal, versus the Motorola's stated maximum of 60uA.

Other than that, the Motorola VP Oncore engine is superior in all ways, including price. The recommendation, from my perspective, is to choose the Motorola unit, but your choice may vary. The above factors, in which the Trimble unit is superior, may be significant ones for you.

I have had requests from 375 individuals, from nine countries, for over 435 units. All this is, of course, based on a "\$150" purchase price, which is not available.

Understanding this, it seems best if there is a "standard" configuration which is ordered, as the pricing given is for quantities of 100 and greater. If 100+ want the options, we'll order those, too. Remember, all prices are for 100+ units per item. In other words, if 25 units are wanted with the LNA option, the pricing for that LNA option will be somewhat higher than the figure quoted below, and I'm not sure if Motorola can (or will) handle one-sie, two-sies and get it right.

The recommended "standard" configuration:

Item	Price / each (includes Colorado State sales tax)
VP Oncore engine	\$268
Active Antenna	\$ 70
Cable to antenna	\$ 22

Total "standard"	\$360

Options to be considered:

LNA	\$ 16
battery	\$ 11

Shipping within the continental U.S., via 2nd day service, will run \$10. This

Output Messages

- o Latitude, longitude, height, velocity, heading, satellite tracking status (Motorola Binary Protocol)
- o NMEA-0183 Version 2.00 (GGA, RMC, GLL, GSA)
- o LORAN emulation mode
- o Software selectable

Operating voltage

- o 4.75 - 5.25 VDC, 50 mVp-p ripple

Operating current

- o 230 mA typical @5V, 275 mA max at 5.25V

Standby voltage

- o 2.5 - 5.0 VDC

Standby current

- o 60 ua max

Dimensions

- o 2.00" x 3.25" x .64" (50.80mm x 82.55mm x 16.26mm)

Weight

- o 1.9 oz. (53.9g)

Connectors

- o Digital: 10 pin (2 x 5) header on .100" centers
- o RF: right angle OSX (sub-miniature snap-on)

Operating Temperature

- o -30 - +85 degrees C (without on-board battery)
- o -20 - +60 degrees C (with on-board battery)

Storage Temperature

- o -30 - +85 degrees C (without on-board battery)
- o -20 - +60 degrees C (with on-board battery)

Humidity

/\

Specifications for Trimble SVeeSix GPS engine

Model: SVeeSix-CM2

General

L1 Frequency, C/A code (SPS), 6 channel, continuous tracking receiver

Update Rate

NMEA - 1Hz

Accuracy

Position: 25m without SA
Velocity: 0.1m/s without SA
Time: 1 us (nom)

DGPS Accuracy

Position: 2m to 5m (2 sigma)
Velocity: 0.1m/s
Time: 1 us (nom)

Acquisition (typ)

Cold Start: 2 to 5 minutes
Warm Start: 50 sec with time upload
Hot start: 30 sec with time upload

Reacquisition

<2 sec

Dynamics

Velocity: 500 m/sec max
Acceleration: 4g
Jerk: 20m/sec³

Environmental Specs.

Operating temp: -10C to +60C
Storage temp: -55C to +100C
Vibration: 0.008g²/Hz 5Hz to 20Hz
0.05g²/Hz 20Hz to 100Hz
-3dB/octave 100Hz to 900Hz

Operating Humidity: 5% to 95% RH non-condensing @+60C
Altitude: -400m to +18000m

Physical Characteristics

Dimensions: 3.25" x 1.83" x 0.58"
Weight: 1.3 oz. (36.4g)
Connectors: RF: SMB, I/O: 8 pin (2x4), 2mm header

Technical Specifications

Prime power: +5Vdc (-3% to +5%)
Power consumption: 280 ma, 1.40 watts
Backup power: +3 to +5 Vdc
Backup consumption: 1 uA @3V and +25C (nom)
Serial port/1PPS: CMOS TTL
Protocol options: TSIP @9600 baud, 8-0-1
NMEA 0183 v2.0 @4800 baud, 8-N-1
TAIP @4800 baud, 8-N-1

NMEA messages: Standard: GGA, VTG
Optional: GGA, GLL, VTG, ZDA, GSA, GSV, RMC

Pricing (includes Colorado state tax)

SveeSix CM2, DGPS capable	\$321
Antenna (includes cable)	\$118

[illegible]

— —

| This msg is brought to you via IDN Internet Gateway (idn.nl)

Internet: bonomo@specxn.enet.dec.com

1

| Standard disclaimer: The views of this user are strictly his own.

Date: 26 May 94 00:59:52 +0000

From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!EU.net!sun4nl!idn!

61-100-0-0!PMDF.Mail.Server@network.ucsd.edu

Subject: Undeliverable RFC822 mail: returning to sender

To: ham-digital@ucsd.edu

From: postmaster@sedalia.sinet.slb.COM (PMDF Mail Server)

Date: 26 May 94 00:59:52 GMT

Organization: ucsd usenet gateway

--Boundary (ID HgQZVRe6auSmH4rT46VGXQ)

Your message could not be delivered to:

HUTIN@ASL

Your message has been enqueued and undeliverable for 96 hours.

No further attempts will be made to deliver your message.

--Boundary (ID HgQZVRe6auSmH4rT46VGXQ)

Content-type: MESSAGE/RFC822

Received: from DECNET-MAIL (MBA3035) by sinet.slb.com (PMDF V4.2-12 #5530) id

<01HCLRFHEB0G00B0V0@sinet.slb.com>; Sat, 21 May 1994 14:26:13 MST

Date: Sat, 21 May 1994 14:26:12 -0700 (MST)

From: Ham-Digital Mailing List and Newsgroup <ham-digital@UCSD.EDU>

Subject: Ham-Digital Digest V94 #156

To: HUTIN@ASL

Message-id: <01HCLRFHH93M00B0V0@sinet.slb.com>

X-Envelope-to: HUTIN@ASL

X-VMS-To: Ham-Digital@UCSD.EDU
MIME-version: 1.0
Content-transfer-encoding: 7BIT

Ham-Digital Digest Sat, 21 May 94 Volume 94 : Issue 156

Today's Topics:

 9600 bps radio modems
 AEA CP-1
 Anybody use Mathcad?
 Baycom circuit? (2 msgs)
 CISCO Router to Gracilis PackeTen
 Don't miss May issue of QEX
ftp site to get "graphic packet" (w/ 7plus) with English doc's?
 HTX-404
 Kenwood tr7400a
Multi-mode TNC suggestions (2 msgs)
 PK-232MBX vs. MFJ-1278B
 what freq to receive weather fax ?

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

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policies or positions of any party. Your mileage may vary. So there.

Date: 20 May 94 15:18:31 GMT
From: ncrgw2.ncr.com!ncrhub2!ranger!cn2935.DaytonOH.NCR.COM!jra@uunet.uu.net
Subject: 9600 bps radio modems
To: ham-digital@ucsd.edu

In article <2rdtrb\$jvc@network.ucsd.edu> brian@nothing.ucsd.edu (Brian Kantor)
writes:

>I'm disgusted with the performance of the carrier detect circuits in
>the three popular 9600 bps radio modems used by amateurs - the K9NG,
>G3RUH, and new TAPR modems.

[good discussion deleted]

>I'd really like to come up with some sort of better DCD - and it

>wouldn't hurt if it had better data recovery performance as well.

>Sure, the right answer is DSP. N4HY will tell you that, and I agree.

>But short of that, is there some approach that'll help?

>(Being compatible with the scrambled direct FSK that the current modems

>use would be a plus, but isn't required.)

What's wrong with using a squelch-derived DCD? It's possible to make a squelch that's fast and reliable -- in the Kantronics D4-10, the squelch response time is <well> under 10 milliseconds, and it is very solid.

Is it really true that normal VHF radio squelches today are horribly slow? Has anyone measured the squelch speed of popular radios being used for 9600? It may be that even the slower ones could be made acceptably fast by clipping out a capacitor or two...

I've always questioned the idea that you want a digital DCD so that other signals on the channel won't hold off transmission. First, if you transmit over the top of someone because your DCD doesn't happen to respond to their modulation scheme, there's a question of deliberate interference. But more practically, if the signal is strong enough to override a reasonable squelch setting, the chances are it's going to stomp on your packets, anyway.

John AG9V

jra@lawdept.daytonOH.ncr.com

Date: Fri, 20 May 1994 15:10:02 GMT

From:

ihnp4.ucsd.edu!agate!howland.reston.ans.net!vixen.cso.uiuc.edu!sdd.hp.com!hp-pc!news1.boi.hp.com!cupnews0.cup.hp.com!tomg@network.ucsd.edu

Subject: AEA CP-1

To: ham-digital@ucsd.edu

I have acquired an ancient(?) AEA CP-1 Computer Patch for RTTY and CW. It came with a cartridge for RTTY/CW and another for AMTOR, both for the Commodore C-64 computer. If anyone has instructions for using the AMTOR cartridge (I have instructions for RTTY/CW) for the C-64, and any information about software to use this thing on an IBMPC clone please email me or post to this newsgroup.

Thanks, Tom Graham - N6WLF
tomg@cup.hp.com

Date: 20 May 94 19:06:18 GMT

From:

agate!howland.reston.ans.net!cs.utexas.edu!convex!news.duke.edu!concert!hearst.
cc.Virginia.EDU!cscsun!dtiller@ucbvax.berkeley.edu

Subject: Anybody use Mathcad?

To: ham-digital@ucsd.edu

Henry B. Smith (hbs@crl.com) wrote:

: Does anybody use the Mathcad math package? I know that Mathsoft
: occasionally has discount offers but I am not on their mailing list
: so I dont have a coupon (or whatever they offer).

Yes. I use mathcad 5.0+. It's very powerful. Email me if you'd like
more info.

--

David Tiller	Network Administrator	Voice: (804) 752-3710	
dtiller@rmc.edu	n2kau/4	Randolph-Macon College	Fax: (804) 752-7231
Brady Law critique removed	P.O. Box 5005	ICBM: 37d 42' 43.75" N	
due to liberal PC pressure.	Ashland, Va 23005		77d 31' 32.19" W

Date: 20 May 94 18:37:04 GMT

From:

agate!howland.reston.ans.net!torn!nott!emr1!gdim.geod.emr.ca!stephens@ucbvax.berkeley.edu

Subject: Baycom circuit?

To: ham-digital@ucsd.edu

Darryl Linkow (darryl.linkow@ledge.com) wrote:

: I have downloaded the Baycom software and read the manual. From
: what I can understand, this software let's me use do packet without
: a TNC. What I don't understand is how I connect my HT to my
: computer. The manual shows some inputs to a serial port, but don't
: I need a modem as well? Also, there is something about a small
: circuit board to interface the radio to the RS-232 port. Anyone
: have any info on this? Also, is anyone using Baycom? If so, are
: you happy with it? Or should I spend a bunch of money and buy a
: TNC? I am new to ham radio (I am still waiting for my license, 7
: weeks now!) and don't know if I will like packet, so I am looking
: to get my feet wet at a low cost, to see if I like it. Any info
: would be appreciated.

: ---

: ~ OLX 2.2 ~ Darryl Linkow (818)346-5278 9 am - 5 pm PDT

The circuit is available as a postscript file as TCM3105.zip

that is in the oak.oakland.edu msdos/packet directory.
A local radio club (Ottawa) is offering a kit for \$49 Can.
VE3PYG/VE3GSC

--

Dave Stephenson
Geological Survey of Canada *Too much bad arithmetic is not a *
Ottawa, Ontario, Canada *substitute for not enough good *
Internet: stephens@geod.emr.ca * mathematics *

Date: Fri, 20 May 1994 15:36:25 GMT
From:
elroy.jpl.nasa.gov!usc!howland.reston.ans.net!europa.eng.gtefsd.com!news.umbc.e
u!eff!news.kei.com!ub!freenet.buffalo.edu!aa450@ames.arpa
Subject: Baycom circuit?
To: ham-digital@ucsd.edu

In a previous article, darryl.linkow@ledge.com (Darryl Linkow) says:

>I have downloaded the Baycom software and read the manual. From
>what I can understand, this software let's me use do packet without
>a TNC. What I don't understand is how I connect my HT to my
>computer. The manual shows some inputs to a serial port, but don't
>I need a modem as well? Also, there is something about a small
>circuit board to interface the radio to the RS-232 port. Anyone
>have any info on this? Also, is anyone using Baycom? If so, are
>you happy with it? Or should I spend a bunch of money and buy a
>TNC? I am new to ham radio (I am still waiting for my license, 7
>weeks now!) and don't know if I will like packet, so I am looking
>to get my feet wet at a low cost, to see if I like it. Any info
>would be appreciated.

>

> ~ OLX 2.2 ~ Darryl Linkow (818)346-5278 9 am - 5 pm PDT

>

Darryl, as you have already said, it takes a modem to make Baycom
work. It is a fairly simple device which is often packaged inside
the housing of a 25-pin RS-232 connector.

Check QST 6/94 issue, p140 for Tigertronics add of BayPac BP-1.
(800)822-9722.

Also, PacComm has a BayMod-9 and BayMod-25 (9 or 25 pin RS-232)
(800)486-7388.

There are many of these in use and they are thought to be a good
way to get started. Many users go no further. Cost is about \$50.

908-544-8317 (fax)

Date: Fri, 20 May 1994 21:39:34 GMT

From:

lll-winken.llnl.gov!sol.ctr.columbia.edu!howland.reston.ans.net!vixen.cso.uiuc.
du!uchinews!kimbark!khopper@seismo.css.gov

Subject: Don't miss May issue of QEX

To: ham-digital@ucsd.edu

F.Y.I.

Don't miss the May issue of QEX - there are two excellent
articles. (1) A high performance HF modem by KC7WW and
(2) a THOROUGH explanation of G-TOR by the authors from
Kantronics.

Ken - N9VV

Date: Thu, 19 May 1994 17:55:03 GMT

From:

dog.ee.lbl.gov!overload.lbl.gov!s1.gov!fastrac.llnl.gov!lll-winken.llnl.gov!elr
y.jpl.nasa.gov!usc!howland.reston.ans.net!europa.eng.gtefsd.com!library.ucla.ed
!csulb.@@ihnp4.ucsd.edu

Subject: ftp site to get "graphic packet" (w/ 7plus) with English doc's?

To: ham-digital@ucsd.edu

Downloaded a packet program "graphic packet" that is also suppose to
automatically identify and decode binaries encoded in "7plus".
Problem is that the doc's are in German, and very little in English.
So, I'm not sure if I can even run it on a 286 with DOS 5.0 and
an mono EGA and no windows.

Anyplace have doc.s in English? Or if it won't run on my PC, I'd
like to know that.

(Yes, I'm one of those Americans that know only one language (English),
but please realize that there are too many choices of 2nd language
and none an obvious choice, and I don't have time or ability to do
them all). :-(

Date: Fri, 20 May 1994 14:35:09 GMT

From:
ihnp4.ucsd.edu!news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!eur
pa.eng.gtefsd.com!gatech!swrinde!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: HTX-404
To: ham-digital@ucsd.edu

In article <9405182311.AA09268@sgi28.csci.csusb.edu>
mwestfal@sgi28.CSci.CSusb.EDU (Michael Westfall) writes:

>I just bought a HTX-404 from er, ah.. Radio Shack, and knowing that they are
>made by ICOM and noticing that the battery pack looks the same,
>I asked the GBTC (Guy Behind the Counter) about whether I could use
>my ICOM battery packs on it. He said no, that if you use a higher voltage
>battery pack (for instance a 12 volt one) it "would burn out a little diode
>inside the radio"..

>

> Anybody know whether this is true? If so, it seems like a colossal
>design blunder, especially seeing as how there is no warning in the
>user's manual telling you not to do this!

Official word from a Radio Shack VP is that the radios are *not* made
by Icom. They are manufactured to RS's design by an unspecified Korean
company. However, Icom battery packs of the IC2 generation will fit and
work.

My opinion now. I wouldn't use a 12 volt pack unless I was sure it
was safe. I know the standard Icom packs work fine. I *think* it's OK
to use a 12 volt pack unless you try to run the radio off external
power or charge the battery *through the radio*. I *think* you can use
the 12 volt pack if you always charge it while *off the radio* in an
Icom drop in charger, but I haven't actually done that.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 21 May 94 00:59:42 GMT
From: news-mail-gateway@ucsd.edu
Subject: Kenwood tr7400a
To: ham-digital@ucsd.edu

Has anyone here hooked up a Kenwood TR-7400A to a PK-88? I checked in the
manual for the PK-88 and it looks like I csan use the mike connector as the
standard 4 - pin connection given. It seems a bit generic to me and I'd like

to confirm it before I buy a connector and create smoke. I also noticed and external speaker jack and a tone pad connector. Could these be used?

73 DE KB7UUX

--

Stuart Whiting stuartwh@microsoft.com

"All the science I don't understand, It's just my job five days a week"

Date: 19 May 1994 03:41:46 GMT

From:

lll-winken.llnl.gov!overload.lbl.gov!agate!howland.reston.ans.net!spool.mu.edu!
ri.com!noc.near.net!chaos.dac.neu.edu!chaos.dac!wy1z@ames.arpa

--

| This msg is brought to you via IDN Internet Gateway (idn.nl)

| Internet: PMDF.Mail.Server@f0.n100.z61.fidonet.org

|

| Standard disclaimer: The views of this user are strictly his own.

End of Ham-Digital Digest V94 #168
